

WHAT IS CLAIMED AS NEW AND DESIRED TO BE PROTECTED BY  
LETTERS PATENT OF THE UNITED STATES OF AMERICA, IS:

1. A method of cancelling a bar code, previously imprinted upon a thermal-direct-printed bar code label as a result of exposing predetermined portions of said thermal-direct-printed bar code label to a predetermined temperature level  
5 whereby said predetermined exposed portions of said thermal-direct-printed bar code label become blackened, comprising the steps of:

providing a heat source capable of generating sufficient heat such that an object disposed within the vicinity of said heat source will be heated to said predetermined  
10 temperature level; and

exposing a thermal-direct-printed bar code label, which has a bar code pre-printed thereon and which becomes thermally active at said predetermined temperature level, to  
15 said heat source such that the entire expanse of said pre-printed, thermal-direct-printed bar code label is exposed to said heat source whereby said entire expanse of said pre-printed, thermal-direct-printed bar code label is heated to said predetermined temperature level such that said entire  
20 expanse of said pre-printed, thermal-direct-printed bar code label becomes blackened so as to thereby render said bar code, pre-printed upon said thermal-direct-printed bar code label, illegible and unreadable.

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2. The method as set forth in Claim 1, wherein:

said predetermined temperature level is within the range of 100-500°F.

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3. The method as set forth in Claim 1, wherein:

said heat source may comprise a heat source chosen from the group comprising a heat lamp, an infrared heater, a microwave generator, a hot air generator, a laser source,  
10 and a heated platen.

4. A method of cancelling a bar code, previously imprinted  
15 upon a thermal-direct-printed bar code label as a result of exposing predetermined portions of said thermal-direct-printed bar code label to a predetermined temperature level whereby said predetermined exposed portions of said thermal-direct-printed bar code label become blackened, and wherein  
20 said bar code label has been subsequently affixed upon a packaging container, comprising the steps of:

providing a heat source capable of generating sufficient heat such that an object disposed within the vicinity of said heat source will be heated to said predetermined  
25 temperature level; and

exposing a packaging container, having a thermal-direct-printed bar code label affixed thereon and comprising a bar code pre-printed thereon as a result of thermal activation at said predetermined temperature level, to said heat  
30 source such that the entire expanse of said thermal-direct-printed bar code label is exposed to said heat source so as

to heat said entire expanse of said thermal-direct-printed  
bar code label to said predetermined temperature level such  
that said entire expanse of said thermal-direct-printed bar  
code label becomes blackened so as to thereby render said  
5 bar code, pre-printed upon said thermal-direct-printed bar  
code label, illegible and unreadable whereby said packaging  
container can be reused by affixing a new bar code label  
thereon.

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5. The method as set forth in Claim 4, wherein:  
said predetermined temperature level is within the  
range of 100-500°F.

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6. The method as set forth in Claim 4, wherein:  
said heat source may comprise a heat source chosen  
20 from the group comprising a heat lamp, an infrared heater, a  
microwave generator, a hot air generator, a laser source,  
and a heated platen.

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7. The method as set forth in Claim 4, further comprising  
the steps of:

providing a work station;  
disposing said heat source at said work station;

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conveying said packaging container to said work station by means of a conveyor so as to expose said packaging container to said heat source whereby said bar code, pre-printed upon said thermal-direct-printed bar code label, can be effectively cancelled as a result of said thermal-direct-printed bar code label being blackened throughout the entire extent of said thermal-direct-printed bar code label as a result of being exposed to said heat source.

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8. The method as set forth in Claim 7, wherein:

said heat source comprises a plurality of heating elements disposed at said work station.

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9. The method as set forth in Claim 7, further comprising the step of:

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providing first and second entry and exit photocell systems operatively associated with said conveyor for controlling the conveyance of said packaging container upon said conveyor into and out from said work station.

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10. The method as set forth in Claim 9, further comprising the step of:

providing a central processing unit (CPU) for controlling said conveyor in response to signals from said first and second photocell systems, and for respectively

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controlling energization and de-energization of said heat source when said packaging container is disposed at said work station, and when said packaging container is absent from said work station.

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11. The method as set forth in Claim 6, wherein:

10 said work station comprises an oven-type enclosure; and

said conveyor conveys said packaging container through said oven-type enclosure.

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12. Apparatus for cancelling a bar code, previously imprinted upon a thermal-direct-printed bar code label as a result of exposing predetermined portions of said thermal-direct-printed bar code label to a predetermined temperature level whereby said predetermined exposed portions of said thermal-direct-printed bar code label become thermally activated and blackened, comprising:

20 a work station;  
a packaging container, having a thermal-direct-printed bar code label, comprising a pre-printed bar code, affixed thereon; and

25 a heat source operatively disposed with respect to said work station and capable of generating sufficient heat so as to subject said packaging container, having said thermal-direct-printed bar code label affixed thereon and comprising said bar code pre-printed thereon as a result of

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thermal activation at said predetermined temperature level,  
to said sufficient amount of heat such that the entire ex-  
panse of said thermal-direct-printed bar code label is ex-  
posed to said heat of said heat source whereby said entire  
5    expanse of said thermal-direct-printed bar code label is  
heated to said predetermined temperature level whereupon  
said entire expanse of said thermal-direct-printed bar code  
label becomes blackened so as to thereby render said bar  
code, pre-printed upon said thermal-direct-printed bar code  
10   label, illegible and unreadable whereby said packaging con-  
tainer can be reused by affixing a new bar code label there-  
on.

15    13. The apparatus as set forth in Claim 12, wherein:  
          said predetermined temperature level is within the  
range of 100-500°F.

20    14. The apparatus as set forth in Claim 12, wherein:  
          said heat source comprises a heat source chosen  
from the group comprising a heat lamp, an infrared heater, a  
25   microwave generator, a hot air generator, a laser source,  
and a heated platen.

30    15. The apparatus as set forth in Claim 14, wherein:  
          said heat source comprises at least one heated

platen; and

said at least one heated platen is mounted upon a movable support so as to be movable toward and away from said packaging container.

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16. The apparatus as set forth in Claim 12, further comprising:

10 a conveyor for conveying said packaging container to said work station so as to expose said packaging container to said heat source whereby said bar code, pre-printed upon said thermal-direct-printed bar code label, can be effectively cancelled as a result of said thermal-direct-

15 printed bar code label being blackened throughout the entire extent of said thermal-direct-printed bar code label as a result of being exposed to said heat source.

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17. The apparatus as set forth in Claim 12, wherein:

said heat source comprises a plurality of heating elements disposed at said work station.

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18. The apparatus as set forth in Claim 16, further comprising:

30 first and second entry and exit photocell systems operatively associated with said conveyor for controlling

the conveyance of said packaging container upon said conveyor into and out from said work station.

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19. The apparatus as set forth in Claim 18, further comprising:

10 a central processing unit (CPU) for controlling said conveyor in response to signals from said first and second photocell systems, and for respectively controlling energization and de-energization of said heat source when said packaging container is disposed at said work station, and when said packaging container is absent from said work station.

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20. The apparatus as set forth in Claim 12, wherein:

20 said work station comprises an oven-type enclosure; and

said conveyor conveys said packaging container through said oven-type enclosure.

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